EMERGENCY AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

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DATE: April 24, 2001
2001-09-51

Transmitted as follows is emergency airworthiness directive (AD) 2001-09-51, for the attention of all owners and operators of Boeing Model 737-600, -700, -700C, and -800 series airplanes.

Background

The FAA received reports indicating that, during accomplishment of actions required by AD 2001-04-08, amendment 39-12127 (66 FR 13229, March 5, 2001), operators found problems with the elevator tab control rods on certain Boeing Model 737-700 and -800 series airplanes. One operator found jam nuts that had been installed improperly. Two other operators reported damage that was attributed to inadequately torqued jam nuts. The control rod jam nuts may not have been torqued properly when the control rod length was rigged at Boeing prior to delivery of the airplanes.

Improperly torqued jam nuts on the elevator tab control rods could result in damage to the tab control rod. If both tab control rods are damaged, excessive freeplay in the tab control mechanism can occur, which could result in elevator tab flutter. This condition, if not corrected, could result in loss of controllability of the airplane.

The elevator tab control rods on Model 737-600 and -700C series airplanes are identical to those on the affected Model 737-700 and -800 series airplanes. Therefore, those Model 737-600 and -700C series airplanes may be subject to the same unsafe condition revealed on Model 737-700 and -800 series airplanes.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Alert Service Bulletin 737-27A1245, dated April 23, 2001, which describes procedures for inspecting the small jam nut on the elevator tab control rods to detect inspection putty and to determine its condition; a torque check of the small and large jam nuts on the tab control rod, if necessary; and corrective actions (including performing a detailed visual inspection of the threads on the rod end bearing for wear, measuring the diameter of the threads on the rod end bearing, replacing the rod end bearing and the threaded adjustment bushing, torquing the jam nuts, and applying inspection putty), as applicable.

For any control rod jam nut on which the putty is found and is intact, the alert service bulletin also describes procedures for a one-time inspection for torque of the small and large jam nuts on the tab control rods; and corrective actions (including performing a detailed visual inspection of the threads on the rod end bearing for wear, measuring the diameter of the threads on the rod end bearing, replacing the rod end bearing and the threaded adjustment bushing, torquing the jam nuts, and applying inspection putty), as applicable.

Explanation of the Requirements of the Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of this same type design, this airworthiness directive is issued to require the actions specified in the alert service bulletin described previously. The actions are required to be accomplished in accordance with the alert service bulletin described previously.

This AD also requires that operators report both positive and negative results of inspections to Boeing.

Clarification of Applicability

For clarification, the FAA notes that, while the alert service bulletin does not specify that Model 737-700C series airplanes are subject to the actions in the alert service bulletin, the list of affected line numbers in the applicability of this AD includes the line numbers of certain Model 737-700C series airplanes.

Determination of Rule's Effective Date

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this AD effective in less than 30 days.

This rule is issued under 49 U.S.C. Section 44701 (formerly section 601 of the Federal Aviation Act of 1958) pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this AD.

2001-09-51 BOEING: Docket No. 2001-NM-126-AD.

Applicability: Model 737-600, -700, -700C, and -800 series airplanes, line numbers 1 through 788 inclusive, 790 through 814 inclusive, 816, 819, 821, and 823, certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent excessive freeplay in the tab control mechanism, which could result in elevator tab flutter, and consequent loss of controllability of the airplane, accomplish the following:

(a) Within 10 days after receipt of this AD, inspect the small jam nut on the elevator tab control rods to detect inspection putty and to determine its condition, per paragraph III.B. of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1245, dated April 23, 2001.

(1) If inspection putty is found and it is intact, no further action is required by paragraph (a) of this AD.

(2) If inspection putty is missing or detached, prior to further flight, perform a torque check of the small and large jam nuts on the tab control rod, in accordance with paragraph III.B. of the alert service bulletin. Prior to further flight, perform corrective actions (including performing a detailed visual inspection of the threads on the rod end bearing for wear, measuring the diameter of the threads

on the rod end bearing, replacing the rod end bearing and the threaded adjustment bushing, torquing the jam nuts, and applying inspection putty), as applicable, per paragraph III.B. of the alert service bulletin. If the tab control rod is disassembled and if no wear is found during accomplishment of the detailed visual inspection specified in this paragraph, measuring the diameter of the threads on the rod end bearing may be deferred until 250 flight cycles or 30 days after receipt of this AD, whichever occurs first.

NOTE 2: For the purposes of this AD, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

(b) For any control rod jam nut on which the putty was found and was intact, as specified in paragraph (a)(1) of this AD: Within 250 flight cycles or 30 days after receipt of this AD, whichever occurs first, perform a one-time inspection for torque of the small and large jam nuts on the tab control rods, per paragraph III.C. of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1245, dated April 23, 2001. Prior to further flight, perform corrective actions (including performing a detailed visual inspection of the threads on the rod end bearing for wear, measuring the diameter of the threads on the rod end bearing, replacing the rod end bearing and the threaded adjustment bushing, torquing the jam nuts, and applying inspection putty), as applicable, per paragraph III.C. of the alert service bulletin.

(c) Within 15 days after accomplishing the inspections required by paragraphs (a) and (b) of this AD, submit a report of inspection findings, positive or negative, to Boeing per paragraph I.C. of the Planning Information of Boeing Alert Service Bulletin 737-27A1245, dated April 23, 2001. Information collection requirements contained in this regulation have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) and have been assigned OMB Control Number 2120-0056.

Alternative Methods of Compliance

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

(e) **AD 2001-09-51, issued on April 24, 2001, becomes effective upon receipt.**

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Issued in Renton, Washington, on April 24, 2001.

Original signed by:
Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.